



SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY

NATIONAL GUARD PROJECT

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TARDEC

U.S. ARMY TANK-AUTOMOTIVE RESEARCH DEVELOPMENT AND ENGINEERING CENTER



Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 08 JUN 2006		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE National Guard Project				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Hefferan, Linda				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) US ARMY TACOM 6501 E 11 Mile Road Warren, MI 48397-5000				8. PERFORMING ORGANIZATION REPORT NUMBER 15903	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S) TACOM TARDEC	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) 15903	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT SAR	18. NUMBER OF PAGES 7	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



Overview

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY

- The National Automotive Center has established formal relationships with the National Guard in several states.
- The National Guard's primary mission is State-side, reporting to the Governor of the state. As such, they assist the civil First Responders on a continual basis. This Homeland Security mission is a opportune test vehicle for demonstrating the National Automotive Center's technology.
- This reciprocal arrangement benefits the NAC by demonstrating our technologies in an operational setting in order to mature the technology and benefits the National Guard by providing new technologies and hardware to support their mission.
- The intended outcome is a mature technology that is available for transition, dual use of nature (military and commercial application) and cost effective.





Cyrano

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY SYSTEM DESCRIPTION

- Program Objective: Create and transition a common architecture for the detection of hazardous materials for the National Guard
- Description: Cyrano is an application that uses open commercial standards to plug in environmental sensing devices onto a vehicle, on a soldier, or placed in field. Data can be collected into a single device such that devices can be observed and controlled remotely. Client features can be updated and configured remotely.
- Project completion date: 5 February 2006



Superbowl, Detroit 2006



The Cyrano is well received by the National Guard and is planned for additional National NASCAR Events this summer. This will enable The NAC to continue to harden the technology.

We are beginning to work with the Army on a Army-wide application across many agencies.





SmarTruck III Follow On Vehicles

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY SYSTEM DESCRIPTION

Vehicles integrated by Government Support Services Inc (GSI)
Team includes Diamond Force Engineering (division of International)
International 4200 Series Platform
VT365, 300 horsepower V-8 turbo-charged diesel engine
Allison 2000 series transmission



On-Board Technology :

Wireless hand held night vision illumination systems (NVIS)

Integrated into the vehicle to provide driver night vision.
Hand held capability for off-vehicle deployment.

Configuration:

one Extreme Armored vehicle
two unarmored vehicles
two armored vehicles

Customers:

Two vehicles --to Marine Corps
Three vehicles fitted with SmarTruck Suite of Electronics enhancements, 2 - MING and 1 TBD

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RAVEN UAV

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY SYSTEM DESCRIPTION

- Description: An easily deployable Unmanned Aerial Vehicle appx 3.5 feet long, 5 ft wing span that can be either hand or mortar launched, used for surveillance with camera that is ground controlled.
- Product Transition to PM: No planned transition to local PM. PM UAV in existence at AMCOM, Huntsville, AL.
- Program Objective: Acquire a full UAV Package and provide to customer for operational and technical evaluation. The initial customer will be the Michigan National Guard for a period of use for 1 year upon receipt of the system.



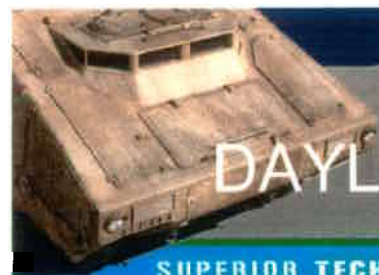
ARDENT SENTRY

- Description: is a NATIONAL SECURITY EXERCISE sponsored by NORAD-NORTHCOM. This exercise is designed to test the ability of Federal, State, and local responders to respond to Incidents of National Significance under the National Response Plan.
- The NAC has coordinated and gained approval to place the RAVEN technology into this Joint Level Exercise.
- This multi-national, multi-state, interagency exercise focuses on an National Pandemic Influence Outbreak and the exercise is occurring in May 06. The MING portion including the RAVEN will occur on 8-10 May. Representatives from the NAC will observe both day and night operations.

AGENCIES INVOLVED

- NORTHCOM & DOD: NORAD, Joint Staff, FORSCOM, USJFCOM, NGB, USPACOM, DLA,DISA, DTRA, Asst. SecDef for HD, DIA
- INTERAGENCY: FEMA, Homeland Sec Council, VA, Dept of Labor, EPA, FAA, HUD, Dept of Energy, State, CIA, DOT, Agriculture, Commerce, Center for Disease Control
- MICHIGAN DEPT: Governor, State Police, Agriculture, Education, Transportation, Community Health, Corrections, Natural Resource
- COUNTIES: Oakland, St.Clair, Wayne, Macomb, TACOM, Detroit Metro Airport
- MI NG: Joint Force HQ, Joint Ops Center, Civil Support Team





DAYLIGHT STANDOFF WARNING DEVICE

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY SYSTEM DESCRIPTION

- Visual warning device for use at Traffic Control Points (TCPs)
- Daylight viewable light
 - Threshold range – 100 M
 - Objective range – 500M
- Portable, hardened system
- Rapid setup capability



BENEFIT TO SOLDIER

- Early non-lethal warning capability to TCPs
- Improve Force Protection (stand-off to soldiers)
- Minimize danger to civilians

USERS

- Prototypes delivered to Stryker Brigade Combat Team – deployed to Iraq – feedback led to system improvements.
- Improved system will be delivered to Michigan National Guard Civil Support Team in May 06.

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Conclusion and Path Forward

SUPERIOR TECHNOLOGY FOR A SUPERIOR ARMY

- We continue to work at the state level of the National Guard in their role of Homeland Defense and have solidified our relationship with many states.
- We are expanding our focus and developing a strategy to be the “Technology Integrator” for the National Guard Bureau and capturing this relationship thru formal processes (MOA), and plan to obtain a similar relationship with Joint Forces Command.
- The National Automotive Center is making strides and interjecting our technologies not only in National and Civil events, but Dept of Defense events in Joint Level operational exercises that support Homeland Defense and the global war on terrorism. Technology Transition to the warfighter at all levels is our main focus.

